What Is Claimed Is:

1. A method that facilitates establishing a quorum for a cluster within a plurality of computers that are geographically distributed, the method comprising:

detecting a change in membership of the cluster at a computer within the plurality of computers; and

upon detecting the change in membership,

forming a potential new cluster by attempting to communicate with all other computers within the plurality of computers,

accumulating votes for each computer successfully contacted,

attempting to gain control of a quorum server located at a site separate from all computers within the plurality of computers,

if successful, accumulating the quorum server's votes, and

if a total of accumulated votes includes a majority of available votes, forming a new cluster from the potential new cluster.

2. The method of claim 1, wherein detecting the change in membership involves:

exchanging heartbeat messages with all computers that are part of the cluster; and

upon discovering an absence of heartbeat messages from any computer in the cluster, initiating a cluster membership protocol.

3. The method of claim 1, wherein detecting the change in cluster membership includes detecting that the cluster has not been formed.

4. The method of claim 1, wherein attempting to gain control of the quorum server involves communicating with the quorum server using cryptographic techniques.

5. The method of claim 1, further comprising:

exchanging a status message with each member of the new cluster; and

updating a local status at the computer to a most recent status available within the status message.

6. A method that facilitates establishing a quorum for a cluster within a plurality of computers that are geographically distributed, the method comprising:

providing a quorum server at a site separate from a location of a computer within the plurality of computers;

assigning at least one vote to each computer within the plurality of computers;

assigning at least one vote to the quorum server;

attempting to establish communications between each pair of computers within the plurality of computers;

accumulating a count of votes for each computer communicated with at each computer;

attempting to establish control over the quorum server from each computer within the plurality of computers;

if control is established over the quorum server, accumulating the quorum server's votes in the count of votes; and

establishing the quorum when a majority of available votes has been accumulated in the count of votes.

7. The method of claim 6, wherein the quorum server grants control to only a first computer attempting to establish control.

8. The method of claim 6, wherein the quorum server grants control to only one computer of all computers attempting to establish control based on a pre-established priority list.

9. The method of claim 6, wherein votes are assigned so that the quorum includes at least one computer that was in an immediately previous cluster, to ensure that a cluster formed from the quorum has current data.

10. The method of claim 6, wherein attempting to establish control over the quorum server involves establishing communications with the quorum server.

11. The method of claim 10, wherein establishing communications with the quorum server involves using cryptographic techniques.

12. A computer-readable storage medium storing instructions that when executed by a computer cause the computer to perform a method that facilitates establishing a quorum for a cluster within a plurality of computers that are geographically distributed, the method comprising:

detecting a change in membership of the cluster at a computer within the plurality of computers; and

upon detecting the change in membership,

forming a potential new cluster by attempting to communicate with all other computers within the plurality of computers,

accumulating votes for each computer successfully contacted,

attempting to gain control of a quorum server located at a site separate from all computers within the plurality of computers,

if successful, accumulating the quorum server's votes, and

if a total of accumulated votes includes a majority of available votes, forming a new cluster from the potential new cluster.

13. The computer-readable storage medium of claim 12, wherein detecting the change in membership involves:

exchanging heartbeat messages with all computers that are part of the cluster; and

upon discovering an absence of heartbeat messages from any computer in the cluster, initiating a cluster membership protocol.

14. The computer-readable storage medium of claim 12, wherein detecting the change in cluster membership includes detecting that the cluster has not been formed.

15. The computer-readable storage medium of claim 12, wherein attempting to gain control of the quorum server involves communicating with the quorum server using cryptographic techniques.

16. The computer-readable storage medium of claim 12, the method further comprising:

exchanging a status message with each member of the new cluster; and

updating a local status at the computer to a most recent status available within the status message.

17. A computer-readable storage medium storing instructions that when executed by a computer cause the computer to perform a method that facilitates establishing a quorum for a cluster within a plurality of computers that are geographically distributed, the method comprising:

providing a quorum server at a site separate from a location of a computer within the plurality of computers;

assigning at least one vote to each computer within the plurality of computers;

assigning at least one vote to the quorum server;

attempting to establish communications between each pair of computers within the plurality of computers;

accumulating a count of votes for each computer communicated with at each computer;

attempting to establish control over the quorum server from each computer within the plurality of computers;

if control is established over the quorum server, accumulating the quorum server's votes in the count of votes; and

establishing the quorum when a majority of available votes has been accumulated in the count of votes.

18. The computer-readable storage medium of claim 17, wherein the quorum server grants control to only a first computer attempting to establish control.

19. The computer-readable storage medium of claim 17, wherein the quorum server grants control to only one computer of all computers attempting to establish control based on a pre-established priority list.

20. The computer-readable storage medium of claim 17, wherein votes are assigned so that the quorum includes at least one computer that was in an immediately previous cluster, to ensure that a cluster formed from the quorum has current data.

21. The computer-readable storage medium of claim 17, wherein attempting to establish control over the quorum server involves establishing communications with the quorum server.

22. The computer-readable storage medium of claim 21, wherein establishing communications with the quorum server involves using cryptographic techniques.

23. A system that facilitates establishing a quorum for a cluster within a plurality of computers that are geographically distributed, comprising:

the plurality of computers;

a network coupling the plurality of computers;

a quorum server located at a site separate from any one computer of the plurality of computers; and

an independent communications link coupling each computer of the plurality of computers and the quorum server.

24. The system of claim 23, wherein the quorum server includes a mechanism for granting control to only one computer of the plurality of computers requesting control.

25. The system of claim 23, wherein the quorum server includes a mechanism for maintaining a list of computers accepted into the cluster.

26. The system of claim 23, wherein the quorum server includes a mechanism for cryptographically ensuring an identity of a computer attempting to establish control.

27. The system of claim 23, wherein the quorum server includes monitoring means to monitor the status of each computer within the plurality of computers.